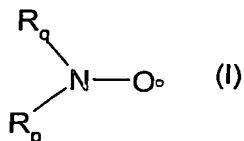


Claims

1. A process for the preparation of secondary nitroxide radicals from their corresponding secondary amines by oxidation with an organic peracid, comprising the steps
  - a) adding to a reaction vessel a secondary amine, optionally together with an organic solvent and in one batch a base selected from the group consisting of alkali metal, alkaline earth metal or ammonium bicarbonates and alkaline earth metal or ammonium carbonates or mixtures thereof in the form of a solid together with water or as an aqueous slurry;
  - b) dosing a peracid under stirring to the reaction mixture in an amount of 1,0 to 2,5 mol per mol of secondary amine; and
  - c) isolating the organic phase.
2. A process according to claim 1 wherein the organic solvent optionally used in step a) is immiscible with water.
3. A process according to claim 1 wherein the peracid is peracetic acid.
4. A process according to claim 1 wherein the amount of water added in step a) is sufficient to dissolve the organic acid salt formed in the neutralization reaction between the organic acid and the bicarbonate or carbonate.
5. A process according to claim 1 wherein the base is sodium or potassium bicarbonate, calcium or magnesium carbonate or dolomite.
6. A process according to claim 1 wherein the base is added in an amount of from 0.1 to 1.5 equivalents base per 1 equivalent of all acids present.
7. A process according to claim 1 wherein the reaction temperature is between 0° C and 40° C.
8. A process according to claim 1 wherein the dosage of the peracid is carried out from 10 minutes to 5 hours.
9. A process according to claim 1 wherein the nitroxide radical is of formula (I)

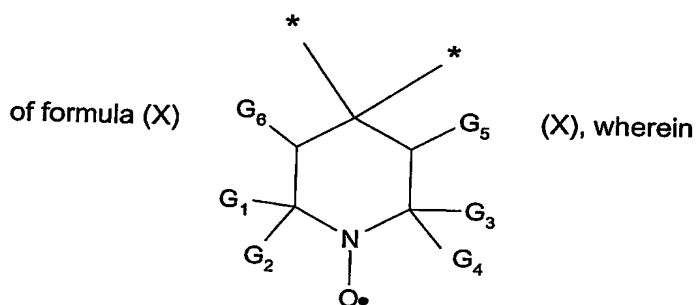
- 18 -



$R_p$  and  $R_q$  are independently tertiary bound  $C_4$ - $C_{28}$ alkyl groups or  $C_3$ - $C_{17}$  secondary bound alkyl groups which are unsubstituted or substituted by one or more electron withdrawing groups or by phenyl; or

$R_p$  and  $R_q$  together form a 5, 6 or 7 membered heterocyclic ring which is substituted at least by 4  $C_1$ - $C_4$ alkyl groups and which may be interrupted by a further nitrogen or oxygen atom.

10. A process according to claim 1 wherein the nitroxide radical contains a structural element



$G_1$ ,  $G_2$ ,  $G_3$ ,  $G_4$  are independently  $C_1$ - $C_6$ alkyl or  $G_1$  and  $G_2$  or  $G_3$  and  $G_4$ , or  $G_1$  and  $G_2$  and  $G_3$  and  $G_4$  together form a  $C_5$ - $C_{12}$ cycloalkyl group;

\*denotes a valence; and

$G_5$ ,  $G_6$  independently are H or  $C_1$ - $C_6$ alkyl.